Letter to the Editor

Swallow syncope

Dear Editor,

A 70-year-old man was admitted to our emergency department owing to syncope. One month earlier, he began to complain of faintness, and sometimes experienced it when swallowing a large stuff. On the day of admission, he lost consciousness when swallowing a relatively large piece of fried potato. He denied any alcohol use, illicit drug use, or family history of sudden cardiac death. Candesartan cilexetil had been prescribed for the past 2 years for hypertension.

On admission, the patient's resting blood pressure was 125/68 mmHg and his heart rate was 58 b.p.m. Physical examination showed no neck bruit, and neurological findings were normal. Laboratory data indicated normal complete blood count, liver enzyme level, renal function, and electrolyte level. No abnormalities were noted in the electrocardiogram (Fig. 1A), carotid ultrasound and echocardiography, or chest and brain computed tomography at admission. On the third day after admission, he experienced faintness, with a 10-s pause seen on the remote telemetry monitor (Fig. 1B), when he was sitting on a bed and swallowing a mouthful of tea, but recovered rapidly and completely. Cardiac catheter examinations were carried out, but no evidence of coronary artery disease was observed on coronary angiography. In the electrophysiological study, the maximal sinus node recovery time and atrioventricular node conduction time were within normal limits. A gastric endoscopic image showed varioliform erosion in the esophagus. The patient refused the test to induce the syncope by eating or drinking a large stuff due to his fear of the syncope; however, integrating these findings, the patient's condition was diagnosed as swallow syncope. Subsequently, a dual-chamber pacemaker was implanted, and the syncope did not recur. The electrocardiogram record based on pacemaker check showed some pacing without any complaints during meals.

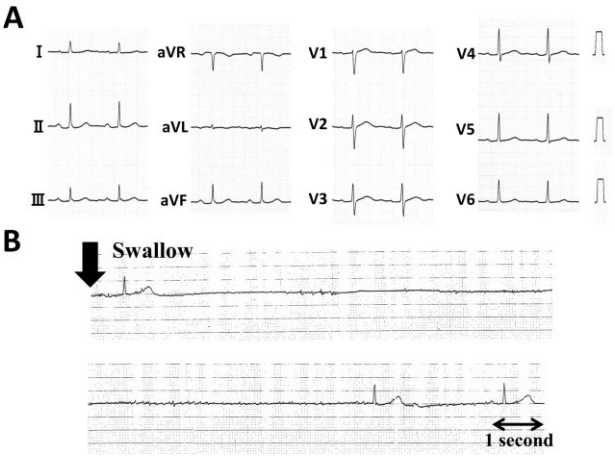

Fig. 1. Twelve-lead electrocardiogram (A) and remote telemetry record (B) of an episode of swallow syncope with transient asystole in a 70-year-old man.

Swallow syncope is a rare type of neurally mediated syncope. Swallow syncope is more common in males; it frequently occurs in adults but rarely in young children.[1] Swallow syncope has been known to occur in patients with organic or functional disorders of the esophagus, but is more likely to occur independent of underlying esophageal diseases. The vagal reflex has been postulated to play the main role in the pathophysiological mechanism underlying swallow syncope.[2] In affected individuals, the stretching of the mechanoreceptor in the esophagus during swallowing stimulates the afferent fibers from the esophageal vagal nerve plexus to the brainstem, leading to stimulation of efferent fibers and, ultimately, to cardiovascular inhibition. The consistency and temperature of food products are believed to play a vital role in the pathogenic mechanism of swallow syncope;[3] however, other researchers have insisted no relation with temperature of products.[4] Patients with swallow syncope are thought to subconsciously refrain from ways of swallowing that induce syncope; therefore, we might be unaware of many patients with swallow syncope. In the clinical setting, 3–5% of all emergency department admissions are attributable to syncope.[5] Provocative tests might be necessary to detect swallow-induced bradycardia or hypotension in patients with syncope experiences.

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CONFLICT OF INTEREST

NONE.

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